Job vacancies in the STEM (Science, Technology, Engineering, Mathematics) fields are expected to rise to 2.5 million between 2004 and 2014 (BLS, 2005). To help fill this need, STEM professionals were podcasted to middle school students, exposing them to the potential job opportunities which exist, and possibly increasing their interest in STEM careers. To investigate whether STEM professional podcasts to middle school students increased their interest in STEM careers, a quasi-experimental pretest/midtest/posttest control group design was analyzed with ANCOVA to determine differences in interest between those students who viewed the podcasts and those who did not. Grade level and gender were also studied to determine differences in interest in pursuing a STEM career. The findings were that the podcast group had significantly higher midtest and posttest scores compared to the control group, when the pretest was the covariate. Posttest scores were not significant between the two treatment groups when midtest scores were used as the covariate. Findings for gender suggested that there is no difference in males and females for interest in pursuing a STEM career when treatment group and grade level were controlled. Grade level comparisons between the two treatment groups found no significant difference in grade level for interest in pursuing a STEM career, when group and gender were controlled. The incorporation of STEM professional podcasts into the classroom could stimulate class discussions on current issues in science, potential careers in STEM and preparatory subjects needed for a particular career which may lead future STEM career pursuits.